STRUKTUR GEOLOGI MEMPENGARUHI PENINGKATAN KALORI BATUBARA DI DAERAH BINTUNI PROPINSI PAPUA BARAT

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Abstrak

Eksplorasi batubara di daerah Tisihu, Bintuni dan sekitarnya adalah untuk menentukan singkapan batuan, singkapan batubara, unsur struktur geologi dan hubungannya peningkatan kalori batubara di daerah telitian. Satuan batuan daerah penyelidikan didominasi Batulempung dan Batupasir dengan Lapisan Batubara di daerah Tisihu memiliki kedudukan lapisan berarah Barat-Timur, Baratlaut-Tenggara, dan kemiringan perlapisan batubara secara umum ke arah Selatan. Lapisan batubara didaerah telitian umumnya warna hitam , hitam cerah, brittle, gores coklat kehitaman,kusam – mengkilap, konkoidal, getas.

Struktur yang dijumpai berupa struktur sesar mendatar barat laut-tenggara dan sesar turun berarah utara-selatan. Arah kedudukkan umum kekar : N 330°-345° E / 78°, N 250°-260° E / 86° dengan arah tegasan, σ1 = N 310° E atau N 130° E dan Arah kedudukkan umum kekar : N 005° E / 72°, N 280° E / 80° , Arah tegasan σ1= N 315° E atau N 135° E dibagian timur Kedudukan umum kekar N 300°-310° E / 76° dan N 020°-035° E / 86° , arah tegasan σ1= N 355° E dan N 175° E.

Data singkapan batubara di daerah Tisihu dianalisa dan didapatkan **5 seam** utama batubara, dengan ketebalan rata-rata seam antara 0,5 – 4 meter dengan nilai kalori batubara berkisar antara 3255 – 5010 kal.

Abstract

Coal exploration in the Bintuni area is inventory field datas and coal outcrops and the objectives of this exploration study is to collect or inventory the newest field datas for completing the morphology and topography condition, coals presence, lateral and vertical coal beds distribution and structural control releted with high calory of coal.

All data collected going to be a study material or technical evaluation for starting an economical and profitable mining activity.

This exploration study carried out with some detail surface mapping, such as; morphology observation, measured lines section, structures geology, coal outcrops profil measured. Based on the briefly explanation above, the rock succesion within the study area can be divided into three (3) un-formally lithostratigraphy units, from the older to the younges section as follows carbonate unit, claystone unit and sandstone. From the measurements data structural geology elements, such as joints, fault plane, can be interpretated that joints of the Tisihu area have recorded a various strike/dip of the structural geology element for compresion joint N 330°E/7 5°, N 020°E/ 75° and N 350°E/ 70°, N 060°E/ 80°. Tension joint or extentional have general strike/dip are N 280°E/ 75°, N 300°E/ 80° and N 005°E/ 75°. While strike slip fault have strike/dip about N 345°-350°E/ 75° exist cross over the north-south trend of the study area. Direction of maximum compression are σ1= N 315° E and N 135° E in Eastern and Western σ1= N 355° E atau N 175° E. There are five (5) coal seams, everade 0,5 – 4 m and with calory between 3255 – 5010 cal.